

**SR 20 Sharpe's Corner to SR 536
Technical Advisory Committee
MEETING NOTES**

Meeting Focus: Review of Alternatives

**June 20, 2002, 9:00 am to 12:00 pm
Skagit Public Utility District, Aqua Room**

Prepared By Jack Graham

Attendance

Technical Advisory Committee

Phyllis Brett, Island Transit
Norman Dahlsted, Dahlsted Family Properties
Nan Fulmer, Fidalgo Country Inn, Inc.
Ann Marie Gutwein, Skagit County Public Works
Eric Johnston, City of Oak Harbor
Rich Melaas, Naval Air Station, Whidbey Island
Mike Morton, Island Sub-RTPO
Charlie O'Hara, Swinomish Tribe
Tim Walters, Equilon Puget Sound Refining Company

Guests

Jack Graham, WSDOT NWR, Mt. Baker Area
Mike Swires, WSDOT NWR Traffic

Project Management Team

Sharon Feldman, CH2MHill
Todd Harrison, WSDOT NWR, Mt. Baker Area
John Fenedick, CH2MHill
Tod McBryan, Heffron
Randy Simonsen, WSDOT NWR, Mt. Baker Area
Marsha Tolon, WSDOT NWR Environmental

Materials presented to the Committee during the meeting included:

1. *Notice of Open House, State Route 20 (Sharpe's Corner to State route 536) Safety Improvements*
2. *SR 20, Sharpe's Corner to SR 536 Committee Meeting, Thursday, June 20, 2002, Agenda*
3. *SR 2,0 Sharpe's Corner to SR 536 NEPA Pilot Technical Advisory Committee and Policy Board Meeting Schedule, June and July 2002*
4. *Draft SR 20, Sharpe's Corner to SR 536 Technical Advisory Committee meeting Notes, February 21, 2002*
5. *SR 20, Sharpe's Corner to SR 536 Proposed Alternatives for Secondary Screening (typed summary plus 5 drawings (figures), plus SR 20: Sharpe's Corner to SR 536 Condensed Alternatives Screening Matrix*
6. *SR 2,0 Sharpe's Corner to SR 536: Alternative 2A: High Speed Throughway Corridor, 4 Options, Figure index, plus Figures 1.2, 2, 3.2 4, - 15*

Should any member that was not at the meeting wish to obtain any of these materials please contact Marsha Tolon, (tolonm@wsdot.wa.gov).

1. Introductions and Meeting Objectives (information)

Todd Harrison opened the meeting at 9:10 am. He stated the objectives of the meeting, that the Project Management Team would review the screening criteria and go over the screened alternatives. Then there would be discussion and time for comments from meeting attendees. Those not able to attend this meeting may be at the Public Open House Tuesday, June 25.

2. Project Schedule and Status (information)

Marsha Tolon then reviewed this meeting's agenda and handouts for the TAC. She told the group assembled that the Public Open House would be at Fidalgo Elementary School. She also said that next week (June 27) will be the first Policy Board meeting at which the PMT will present the recommended alternative to the Policy Board for review and comment. The second Policy Board meeting will be in August. At that meeting the Policy Board will hear what is the progress on environmental documentation, which gives an environmental analysis of the recommended alternative. About that time the PMT will send correspondence detailing the project's progress to TAC members.

3. Review of Alternatives for Screening

Sharon Feldman said that a subcommittee of the Steering Committee had put together various alternatives for this project. Some did not work out, and finally the PMT narrowed them down to the ones summarized in the handouts presented at this meeting. She noted an error on *SR 20, Sharpe's Corner to SR 536, Proposed Alternatives for Secondary Screening*, that Option 2 should be Option 3 and visa versa.

John Fenedick added that the general philosophy of the options of the High-Speed Corridor was to make limited access from SR 536 all the way to Sharpe's Corner. There were grade separations planned into the project at current intersections to eliminate accidents. At Sharpe's Corner, two designs were envisioned, a Flyover or a Texas 'T'. At Thompson Road there were also two options presented, a full interchange or a grade separation between Thompson Road and March Point Road.

The High-Speed Boulevard Alternative is very similar to the High-Speed Corridor Alternative east of the Berentson Bridge. West of the Berentson Bridge there are some boulevard treatments and some slower posted speed limits, with some similar grade separations at Sharpe's Corner and at Thompson Road.

For the Low-Speed Boulevard Alternative, intersection improvements are made throughout the Corridor, but no grade separations. There are turn lanes and pockets.

Within the alternatives there are different options presented. For example, there is the Flyover vs. the Texas 'T' at Sharpe's Corner. These options were both screened.

Sharon reviewed the Alternatives Screening Matrix. This matrix shows how the alternatives ranked; the higher the score, the better that alternative ranked for that particular category.

Tod McBryan used the *SR 20, Sharpe's Corner to SR 536, Alternatives Screening Matrix* to describe traffic related evaluation of these alternatives.

Intermodal Connectivity (Transportation): This is a qualitative evaluation, to see how alternatives can increase modal accessibility for various uses. The particular alternatives presented here for the most part enhanced the modal options for pedestrian and bicycle activity and created some better connections for bus and park and ride options. How an alternative might reduce delay for those connections, how it might force circuitous routing for a pedestrian or bicyclist to and from SR 20.

In this area the High-Speed Boulevard, Option 2, ranked the highest. Both High-Speed Corridor, Options 1 and 2, provide for overcrossings of SR 20 in between intersections so that pedestrians and bicyclists had to use local roadways to get back onto SR 20, so scores for these options were subsequently lower. The Low-Speed Boulevard Alternative would have the same routing as today, but the down side for pedestrians and bicyclists is that it uses signals that cause more congestion and delays. The No Action is the worst-case scenario in the area of Intermodal Connectivity.

Highway Level of Service (Transportation): Tod said that, more than just being an evaluation of the highway level of service, the Highway Capacity Manual operations evaluation method was used to look at all the traffic signals, weaves, and stop signs required by any one of these alternatives, using 2025 as the design year for traffic forecasts. The 2025 volumes came from the countywide model created by T Model for the county and WSDOT. These numbers were hand adjusted to take into account other variables, which were not accounted for in the model, such as peak flow by trucks and employees to and from the refineries.

Tod and his group looked at the operation of intersections and ramps on SR 20 (On Corridor) and also off-corridor intersections (when a new overcrossing is created, such as at Thompson Road, new intersections are created on the local county roadways). Off-corridor values are weighted at three times their actual value in order to give them some weight, but the SR 20 on-corridor values still carry a lot more weight due to the fact that SR 20 carries a lot more traffic volume than off-corridor roadways. Overall there was not a great deal of difference between the rankings of the different high-speed alternatives and options for Highway Level of Service. The Low-Speed Boulevard Alternative ranks poorly because it maintains intersections with signals that operate at C's, D's and E's.

Pedestrian Access (Transportation): These are ranked in part by counting the number of pedestrian crossings of SR 20 provided by the various alternatives/options. All of these alternatives include lots of new pedestrian overcrossings at current intersections. The options, which add new intersections, also create additional pedestrian/bicycle overcrossings.

The number of new miles of pedestrian/bicycle pathway was also ranked; the Low-Speed Boulevard Alternative actually provided for the most new pedestrian/bicycle miles.

Access to Businesses (Social and Economic): How do accesses affect local businesses? Circuitous routing was important in considering this category, because many businesses, which are currently accessible via a left

turn from SR 20, would no longer be accessible in that manner. The Low-Speed Boulevard ranked the highest due to the fact that access issues at intersections were given lots of weight, though there tends to be some problem with congestion at these intersections. The Sharpe's Corner Flyover makes access to the businesses there somewhat difficult; the new ideas that have been presented need to be reviewed. The High-Speed Corridor, Options 3 and 4, were graded down, due to a compressed diamond interchange and the improvements planned at Sharpe's Corner. The combination of the two negatively affects access to businesses at those intersections.

Access to Residences: (Social and Economic): Travel times, as well as the direct effect on driveways, etc ranked this category. Very few residences were affected by any of the alternatives. The different alternatives and options therefore ranked somewhat evenly, though the lower-speed alternatives ranked a little lower due to speed and reliability questions.

Access to Recreation: (Social and Economic): There are not a lot of differences in the effects of any of the alternatives on this category, whether at high speed or low speed.

Emergency & Community Services (Social and Economic): The alternatives were graded four ways: The amount of congestion, (can emergency vehicles can get through in a timely manner?); the speed at which an emergency vehicle could get through the Corridor; additional circuitous routing; and the existence of signals. The High-Speed Corridor, Option 3, rated the highest; it provides for the least amount of congestion and circuitous routing as well as the greatest speeds, and has no signals. Conversely, the Low-Speed Boulevard ranked lowest due to its signals and the congestion at those signals.

Transportation Performance (Vicinity): This area measured volumes of traffic across the Berentson Bridge and entering the Corridor on SR 20. It was a measure of whether the alternative would force additional traffic onto surrounding roads. If an alternative created additional trips, it rated lower. Compared to No Action, the high-speed alternatives created between 300 and 400 additional trips. This means that additional traffic would be entering the Corridor, but it might force some traffic to avoid SR 20 and just use local roadways. The Low-speed Alternative ranked the highest, resulting in a net reduction in travel through the Corridor by about 200 trips.

Mike Swires evaluated the following area, using the *SR 20, Sharpe's Corner to SR 536, Condensed Alternatives Screening Matrix*:

Safety: (Transportation): The data for this area was collected from 1998 through 2001. Intersections were ranked according to their Safety impact, according to the number and severity of accidents. The High-Speed Corridor, Option 2, rated the highest. The 'T' intersection at Sharpe's Corner was shown to be safer than the flyover there, because the flyover has a signal, and the Texas 'T' has none. At Thompson Road, the diamond interchange was compared with the right in/right out option. The diamond interchange creates two intersections with cross traffic, while the right in/right out does not, so that the right in/right out is safer. The Low-Speed Boulevard has the same signals that currently exist plus a couple new ones. People will continue to travel fast due to people's perception (because it has limited access and few intersections) that it is a high-speed freeway, and a police presence will be necessary around the clock.

Todd Harrison and Tod McBryan detailed the reasons that the 'T' at Sharpe's Corner was preferable to the flyover at that intersection by comparing all possible movements of the various legs of roadway that merge at that point.

Marsha Tolon used the *SR 20 Sharpe's Corner to SR 536 Condensed Alternatives Screening Matrix* to present Benefit/Cost (Cost Effective):

Cost Effective: Marsha related that WSDOT used its own software called *The Mobility Process Prioritization Process* to compute accident data and the relative Cost/Benefit of the various alternatives/options, and the amortization of their various features over 20 years. The Benefit/Cost looks at the unique Safety benefits constructed in each of the alternatives and their amortization over those 20 years, using a 1998 – 2001 baseline. The best rankings (a '5') would be given to an alternative with features that cost the least to construct, but with the greatest benefit.

The Low-Speed Boulevard has the least amount of features to construct with the greatest benefit, because there are not grade separations, and it uses the current intersections. The High-Speed Boulevard, Option 2, has the highest number of features to construct with the least benefit. The problem is that, though the Low-Speed Boulevard is very cost effective, it does not tend to be very safe. The best safety improvements cost the most money and are less cost effective.

Though it is too early in the process to be definitive, the cost of constructing the high-speed options is realistically between \$100 million and \$150 million. The Low-Speed Boulevard probably costs between \$10 million and \$20 million. No Action has the highest Benefit/Cost ratio (it costs nothing), but people will continue to die at nearly the

same rate as now. (The Swinomish Tribe's project will create some Safety improvements at no cost to WSDOT.) Mike Morton expressed his concern that there be ranges of costs given for the individual alternatives and options presented. Todd Harrison related that 20% of the project has 80% of the costs, and that the project still needs to account wetland mitigation. Mike Swires added that the WSDOT program works only with gross estimates.

Sharon Feldman presented the following, using the *SR 20, Sharpe's Corner to SR 536 Condensed Alternatives Screening Matrix*:

Natural Environment: Sharon said that the less structures there are to build, the less impact a roadway will have on the natural environment.

Farmland (Natural Environment): In farmland areas, some Right of Way is used for high-speed alternatives, but not for the low.

Fish Habitat (Natural Environment): There are 10 stream crossings, 6 near Sharpe's Corner. One crosses the roadway several times. Designers might be required to move the stream to a different channel, making the high-speed alternatives/options a benefit, but this is speculative at this point. The Low-Speed Boulevard affects this area less.

Wetlands (Natural Environment): There are wetlands located near Thompson Road. The diamond interchange would have more impacts than an overcrossing.

Flood Prone Areas (Natural Environment): The Low-Speed Boulevard has the best impact of any alternatives/options on the flood-prone areas.

Transportation Performance (Vicinity Impacts): In this category, the focus was what was happening outside the SR 20 Corridor. It was found that there would not be any environmental impacts outside the SR 20 Corridor, no zoning or no changes outside of the SR 20 corridor, with the Low-Speed Boulevard.

The difference between the *SR 20, Sharpe's Corner to SR 536, Alternatives Screening Matrix* (the larger chart, presented first) and the *SR 20, Sharpe's Corner to SR 536, Condensed Alternatives Screening Matrix* (the smaller one) are as follows:

The first chart presented has all areas evaluated, even those that have similar scores throughout. The summary chart focuses on the categories showing differences.

Break (10:20 – 10:35 am)

4. Review of Alternative Screening Process

After the break, Marsha led a discussion of the Alternative Screening Process. Sharon Feldman said that many people were concerned with Cost/Benefits. The problem is that it is not a detailed number. The WSDOT program was the wrong tool, showing false, less-than-meaningful results.

Todd Harrison added that cost estimates are relative. For example, a compressed diamond interchange is more expensive than just an overcrossing. That tool is a planning-level tool used to look at the benefit/costs of big-picture, mobility projects. The costs are not necessarily false, but they are really untrustworthy. There is not enough information until some detailed engineering gets completed. He said that the Safety ranking is a measure of the increase in Safety. It doesn't have a dollar amount associated with it. Cost Effectiveness is a measure of the relative costs of the various alternatives/options. Rich Melaas commented that; until the cost effectiveness is defined, each person could interpret it his own way, interjecting his or her own meaning. Todd said that, for the purposes of the public meeting, Cost Effectiveness would be thrown out.

5. Review of Preliminary Preferred Alternative

Todd said that first the team did the large screening matrix, the *SR 20, Sharpe's Corner to SR 536 Alternatives Screening Matrix*. Then it took everything out that did not produce significant, relevant results. At that point Transportation Performance became its own column, as did Safety, because it is the major goal of the project. The team took out Project Costs, because projects costs shouldn't be a huge determining factor. Cost Effectiveness was left in, but now it is being taken out (see above). That leaves us with the following categories:

- Safety,

- Transportation: Intermodal Connectivity, Highway Level of Service, and Pedestrian Access,
- Social/Economic/Land Use: Accessibility to Businesses, Accessibility to Pedestrians, Emergency & Community Services, and Displaced Residences,
- Natural Environment: Fish Habitat, Wetlands, and Flood Prone Areas, and
- Vicinity Impacts: Transportation Performance.

Sharon asked, how we should rank the above categories. She reasoned that, when talking about environmental review, cost is not supposed to be a factor. The reason to choose an alternative is because it is effective. It is not to be refused because it is expensive. Todd added that none of these alternatives/options are too high in cost to consider building.

Sharon mentioned it is tempting to average the various factors to come up with a choice of alternatives, but that would not help, because many of the rankings are so close. Ultimately, Safety was the most important in selecting a preferred alternative, then followed by Transportation Performance, Social/Economic/Land Use, and Natural Environment. No mathematic calculations were done to reach a preferred alternative. However, in the latter two categories, the ranges were small. The Low-speed option was seen as not being able to solve the problem of Safety. For each alternative to affect Safety, there has to be viable mitigation. The Low-Speed Boulevard Alternative would produce a marginal increase in Safety, but it would not be that much different than No Action. Lowering the speed limit does not benefit Safety in this project.

The High-Speed Corridor, Option 2, has the higher Safety ranking, at 5, than Options 1, 3, and 4; however, the High-Speed Boulevard, Option 1, ranked a little higher. The numbers alone do not necessarily indicate the best alternative. One has to look at the project as a whole and recognize the importance of Sharpe's Corner in the consideration. What is done at Thompson Road is also very important, especially in light of the refinery traffic and its unique challenges. Mike Swires stated that, at Thompson Road, right in/right out is safer than the compressed diamond configuration; the compressed diamond induces stops at the top of the ramp. The PMT recommended alternative is the High-Speed Corridor Alternative, Option 2.

Todd Harrison then explained the Level of Service (LOS) category: When a freeway travels at 15 mph, it is at LOS F. When one can easily travel the speed limit, it ranks a LOS A. The team measured each intersection to see how each would be ranked in the year 2025; the LOS measure indicates a return on investment. WSDOT wants to build roads that are still functional in 20 years.

Tod McBryan drew diagrams to illustrate low-speed, signalized intersections, the compressed diamond, and a right in/right out with a bridge over SR 20. The Low-Speed Boulevard ranks at LOS D, and the No Action Alternative is worse, because they stop the heavy SR 20 traffic from flowing freely. The compressed diamond allows a free flow of traffic along SR 20 (ranking at LOS A), but delays traffic at the off-corridor signalized intersections leading up to SR 20. The right in/right out with a new overcrossing over SR 20, such as is found at Best Road (Figure 14 of the High-Speed Throughway Corridor), routes traffic more circuitously across SR 20 than the compressed diamond.

Mike Morton asked what the forecast numbers are for 20 years in the future along the SR 20 Corridor. Tod answered that the numbers generated come from Bob Shull's (of T Model) Skagit County model. Tod said that numbers from the refinery people were used to hand adjust the data to make it more accurate. He said that on the Berentson Bridge there are 3,630 vehicles both directions during afternoon peak hours, 2,000 in one direction, 1,600 in the other. If the high-speed alternative is plugged in, this number increases to about 4,000.

Anne Marie Gutwein asked concerning the LOS of the flyover and the Texas 'T' at Sharpe's Corner. Tod said that with the Texas 'T' the Level of Service rates a LOS C. With a 2-phase signal, the LOS can be optimized. The actual LOS is a bit lower, but it can be maintained. The flyover has no LOS associated with it; the signal below it is also a LOS C.

Eric Johnston asked, and Mike answered, that the rankings for Whidbey Island were included in the decisions.

6. Next Steps for Project Completion

This area was covered under '2. Project Schedule and Status'.

7. General Comments

Following are suggestions based on comments made by members of the TAC regarding the recommended

alternative presented by the PMT at this meeting:

1. Prepare a cost estimate range for the alternatives to present to the SR 20 Policy Board.
2. Explain cost effectiveness in relative terms.
3. Explain cost relative to SEPA and NEPA.
4. Describe the alternatives in terms of system performance as well as safety.
5. The Texas "t" at Sharpe's Corner works better than the fly-over from a safety viewpoint.
6. The group is satisfied with the level of information delivery. Since this process has been going on for three years, and since this is a planning, not engineering, decision there is no need to review all the details. Anyone can get those on his or her own.
7. The pedestrian access at Sharpe's Corner and safety improvements there are good. Another improvement concern that has been addressed is the safety issues up the hill from Sharpe's Corner, which is where the safety issues become crucial.
8. Those supporting the PMT recommended alternative are the Island RTPO, Skagit RTPO, Island Transit, Whidbey Island Naval Air Station, an Anacortes Citizen, the city of Oak Harbor, and Dahlsted Properties. Not in favor was the Equilon Puget Sound Refining Company. The TAC is in agreement that it need not take any formal action itself; it leaves that up to the Policy Board.
9. The City of Oak Harbor is concerned that there may be a conflict between the intersection at Sharpe's Corner and the existing water main which feeds that city.
10. Puget Sound Refineries comments:
 - a. More review is required of the engineering and redesign of local roads that impact the refineries. The success of any plan will necessarily include the financial support of Skagit County.
 - b. The Marches Pt. Road scenario may shift traffic issues to other side roads in the vicinity.
 - c. Evaluate an elevated through lane at the Sharpe's Corner "T" intersection.
11. Skagit County Public Works may love the proposal.
12. The Swinomish Tribal Community is concerned about the northern approach to the reservation. The current westbound SR 20 traffic must take side roads to enter the reservation from the north.
13. WSDOT confirms commitment to assistance with frontage roads as part of the final engineering.

Marsha Tolon and Sharon Feldman thanked the members of the TAC who had persevered since the inception of the project in October of 1999. They expressed appreciation for input from the members and support of the communities involved, and that it has been great working together on this project.

The meeting adjourned at 11:37 am.